



Jeroen Bouma

Quantitative Investment Strategist

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github.com/JerBouma Dutch and English (professional)

PROFILE

My background is in Quantitative Finance and most of my work comes down to putting investment theory into practice with Python. I am currently a Quantitative Investment Strategist at a.s.r. asset management, where I design and maintain models for Solvency II internal model calculations, lifecycle investing, portfolio optimization and ALM across multi-billion euro portfolios. I also lead innovation at the intersection of quantitative finance and AI, from forecasting models to generative AI built on large language models, agentic frameworks and retrieval-augmented generation (RAG).

Outside of my day job, I've built open-source Python libraries such as the Finance Toolkit and Finance Database. They are used by thousands of analysts, developers and students worldwide.

EXPERTISE

Quantitative Finance	• Strategic Asset Allocation • Asset Liability Management • Portfolio Optimization • Liability Hedging	• Risk & Solvency II • Scenario Modelling • Econometrics & Time Series
Artificial Intelligence	• LLM Applications in Finance • RAG Pipelines • Agentic Frameworks	• MCP Servers • Machine Learning • LLM Evaluation & Guardrails
Product & Delivery	• Product Ownership (Scrum) • AI Use-Case Design	• Stakeholder Management • Open-Source Development

EXPERIENCE

Quantitative Investment Strategist February 2024 – Present
a.s.r. asset management

I lead innovation within the asset management divisions at the intersection of quantitative finance and AI. I build and maintain the models behind our Solvency II internal model calculations, lifecycle investing and portfolio optimization, alongside forecasting models and generative AI applications that use large language models, agentic frameworks and retrieval-augmented generation (RAG) to improve how we analyze portfolios and risk. I also run Asset Liability Management (ALM) and Strategic Asset Allocation (SAA) analyses on topics such as hedging strategies, liquidity risk management, Solvency II optimization and asset-only studies, and assess how portfolio sensitivities relate to the liabilities.

Financial Risk Analyst June 2023 – February 2024
a.s.r. asset management

I analyzed profitability and investment risk under different risk frameworks (Solvency II and internal models), looked at portfolio sensitivities and how they relate to the liabilities, and assessed the impact of month-to-month changes. I also helped develop Python models to improve valuation and financial risk measurement.

EDUCATION

Register Beleggingsanalist (RBA)

CFA Society Netherlands
September 2020 – June 2023

MSc Banking & Finance
Utrecht University

September 2017 – June 2019

Bachelor of Economics (BEc)
Hanze University of Applied Sciences

September 2013 – July 2017

CERTIFICATIONS

Transforming Your Business with AI
INSEAD

June 2026

[Verify credential](#)

Certified ScrumMaster (CSM)
Product Owner

August 2022

Chartered Financial Analyst (CFA)

Level 1

January 2020

SKILLS

Python

Machine Learning

Agentic Frameworks

RAG

GLASS

SQL

Databricks

Azure

PowerBI

Git

JavaScript

MATLAB

VBA

MCP

Docker

GitHub Actions

R

Product Manager

February 2022 – June 2023

OpenBB

I was responsible for Product Marketing. That included designing the strategy for Academia outreach, finding gaps in the financial sector and deciding how to respond to them, and leading a multi-disciplinary Go-to-Market team. I also coordinated Engineering work that required a lot of financial knowledge, either by developing the quantitative models myself or by guiding the engineers through design and implementation.

ALM Advisor

July 2019 – February 2022

PGGM

I gave actuarial and strategic advice to several Dutch pension funds. I was responsible for developing and maintaining the econometric model in MATLAB and led most of the technical development of the new econometric model in Python. These models performed the ALM, URM and VEV calculations. I also worked on interactive dashboards and GUIs and on applying Machine Learning techniques.

OPEN SOURCE

Finance Database

2020 – Present

Creator & Maintainer (7,000+ GitHub Stars)

An open-source database with 300,000+ symbols covering Equities, ETFs, Funds, Indices, Currencies, Cryptocurrencies and Money Markets. It gives an overview of sectors, industries and investment types across 111 countries. I started it out of frustration that I did not know which financial products existed. OpenBB later came across the project, which led to a job offer.

Finance Toolkit

May 2019 – Present

Creator & Maintainer (5,000+ GitHub Stars)

An open-source toolkit with 500+ financial methods, each written to be as transparent as possible. It supports Equities, Options, Currencies, Cryptocurrencies, ETFs, Mutual Funds, Indices, Commodities, Key Economic Indicators and more. Combined with the Finance Database, it lets you do a full competitive analysis. It is used by thousands of analysts, developers and students worldwide.

REFERENCES



Didier Lopes

CEO at OpenBB

"Jeroen was at the intersection of finance, programming and open source - which is a combination that is very hard to find ... I highly recommend Jeroen."

[in](#) Read in full on LinkedIn



Luuk van Benthem

Senior ALM Adviseur at PGGM

"In the implementation phase Jeroen played a key role on the development of the technical side of the model. ... Over time I learned a lot from Jeroen which I'm very thankful for!"

[in](#) Read in full on LinkedIn



Pascal Janssen

Strategisch ALM Adviseur at PGGM

"Jeroen is highly skilled in every aspect of programming in Python. ... Jeroen works in a very structured way and approaches his own development with a positive attitude." (translated from Dutch)

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